What we claim is:

1 A single-drive electro-optic Mach Zehnder modulator comprising a body of an electro-optically active material; optical waveguides formed at least partly in that material and constituting a Mach Zehnder interferometer having two limbs constituting alternative light paths between an input and an output so that interference may occur between light taking the alternative paths on recombination at the exit and electrodes for subjecting at least part of at least one of the limbs to an electric field,

wherein the interferometer is divided into at least two longitudinally spaced sections with separate sets of electrodes, each said set of electrodes consisting of at least three electrodes positioned for applying corresponding electric fields in a "push-pull" relationship to corresponding parts of both said limbs of the interferometer and in at least one of said sections said waveguides of the two limbs are coupled.

2 A modulator in accordance with claim 1 in which the said section where the waveguides are coupled is positioned where a bias applied to its electrodes will simply serve to adjust the operating point of the modulator and the waveguides of the two limbs are coupled throughout their length.

3 A modulator in accordance with claim 1 in which the said section where the waveguides are coupled is positioned where a bias applied to its electrodes will affect the partition of the light between the two limbs in relative amplitude and relative phase.

4 A modulator as claimed in claim 4 in which other parts of the waveguides are uncoupled.

5 A modulator as claimed in claim 1 in combination with a source of a first D C Bias connected to electrodes in a section where the waveguides are coupled, a source of a radio-frequency data signal and a second, independent, source of D C bias, each connected to electrodes in another section of the modulator.

6 A modulator as claimed in claim 1 in combination with a source of a first D C Bias connected to electrodes in a section where the waveguides are coupled, a source of a radio-frequency data signal and a second, independent, source of D C bias, each connected to electrodes in a respective other section of the modulator.

7 A method of modulating a light signal using a single-drive electro-optic Mach Zehnder modulator comprising a body of an electro-optically active material; optical

waveguides formed at least partly in that material and constituting a Mach Zehnder interferometer having two limbs constituting alternative light paths between an input and an output so that interference may occur between light taking the alternative paths on recombination at the exit and electrodes for subjecting at least part of at least one of the limbs to an electric field, wherein

the modulator is divided into at least two longitudinally spaced sections with separate sets of electrodes,

each said set of electrodes consisting of at least three electrodes positioned for applying corresponding electric fields in a "push-pull" relationship to corresponding parts of both said limbs of the interferometer,

and the waveguides of the two limbs are coupled in at least one of those said sections,

a first D C bias is connected to the electrodes of that section,

an electrical radio-frequency signal conveying the data to be modulated onto an input continuous-wave light beam is connected to electrodes of another section,

and a second, independent, D C electrical bias is connected to electrodes selected from those of the other section and those of a third section.

8 A method in accordance with claim 7 comprising using a modulator in which the waveguides of the two limbs are coupled throughout their lengths and placing the electrodes to which the first D C bias is applied where such bias will simply serve to adjust the operating point of the modulator.

9 A method in accordance with claim 7 comprising placing the electrodes to which the first D C bias is applied where such bias will affect the partition of the light between the two limbs in relative amplitude and relative phase.

10 A method as claimed in claim 9 comprising using a modulator in which the associated parts of the waveguides are coupled only in the said section defined by the said electrodes to which said first DC bias is applied.